

Can personal values, hope or grit predict academic success?

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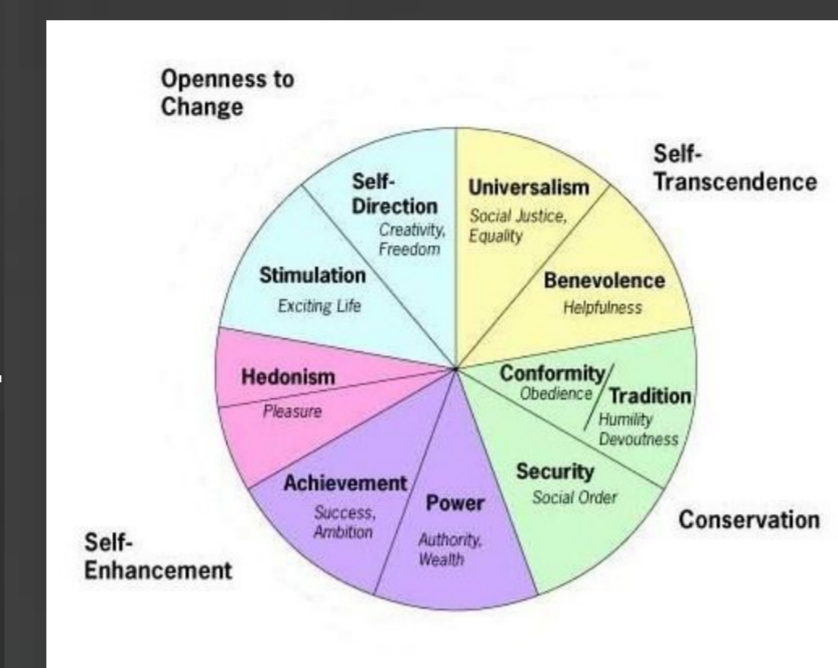
Research Goal

The goal of this research was to identify relationships between important personal values, hope and grit, and with retention and success in first year tertiary study.

Method

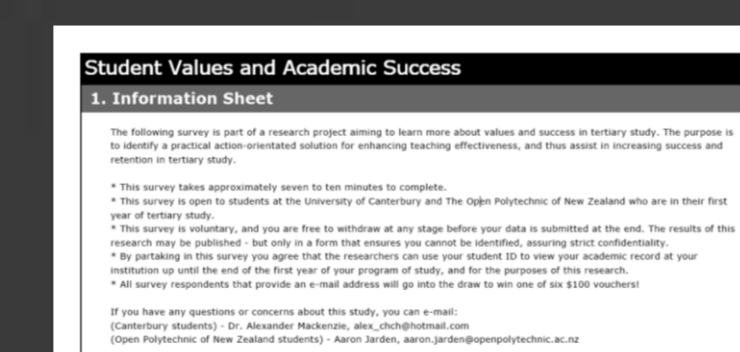
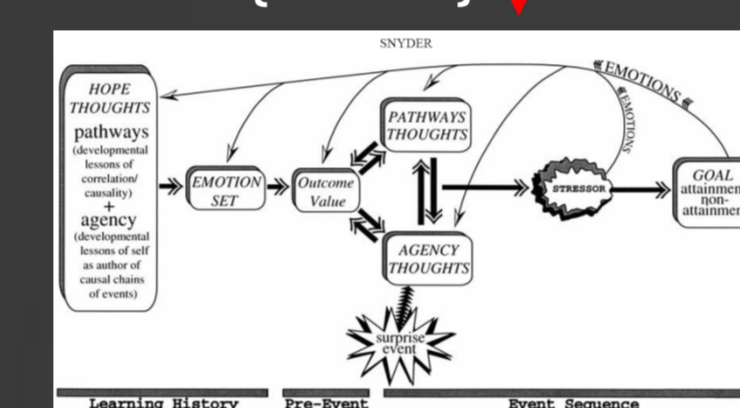
Participants

- 438 participants.
- Type** - A mix of distance education students (237 - The Open Polytechnic of New Zealand: TOPNZ), and contact students (201 - University of Canterbury: UC).
- Gender** - 97 males (22%), 341 females (78%).
- Age** - TOPNZ mean age 32.69 years, UC mean age 20.57 years.
- Summary:**
 - TOPNZ - 34 males (mean age 35.94 years), 203 females (mean age 32.15 years).
 - UC - 63 males (mean age 20.36 years), 138 females (mean age 20.67 years).



Measures

- Measures of personal values, hope, and grit:
- Personal values** - **Portrait Values Questionnaire**, 40 questions: Schwartz, Melech, Lehmann, Burgess, Harris, & Owens (2001). Also, 4 additional values questions.
- Hope** - **Adult Hope Scale**, 12 questions: Snyder, Harris, Anderson, Holleran, Irving, Sigmon, *et al.* (1991).
- Grit** - Grit Scale, 22 questions (extended version): Duckworth & Peterson, (2007).
- Demographics (age, gender, place of study).
- 81 questions in total, average of 11 minutes to complete.



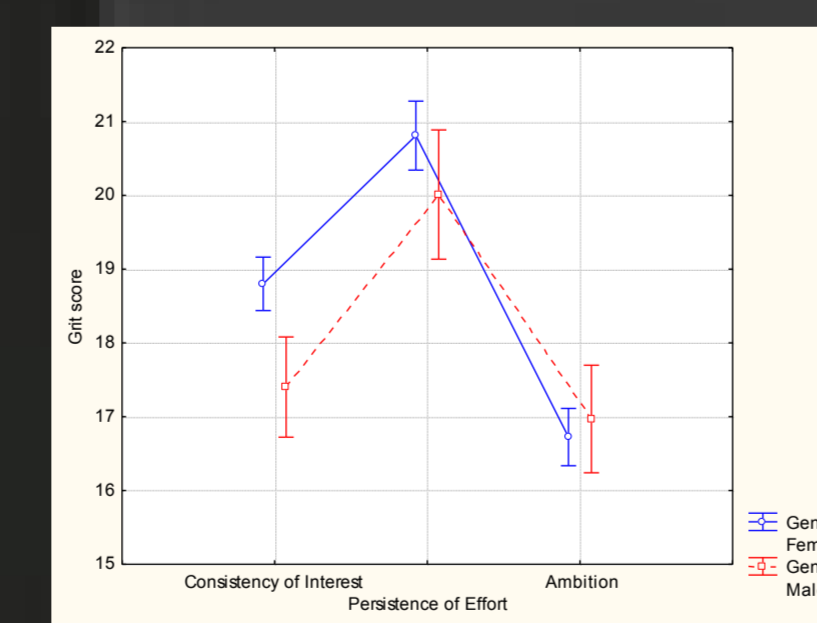
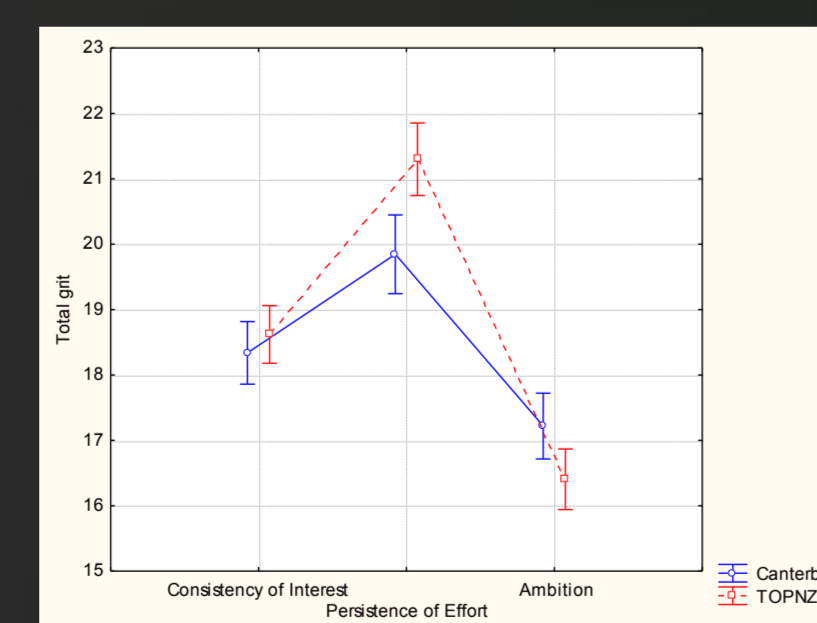
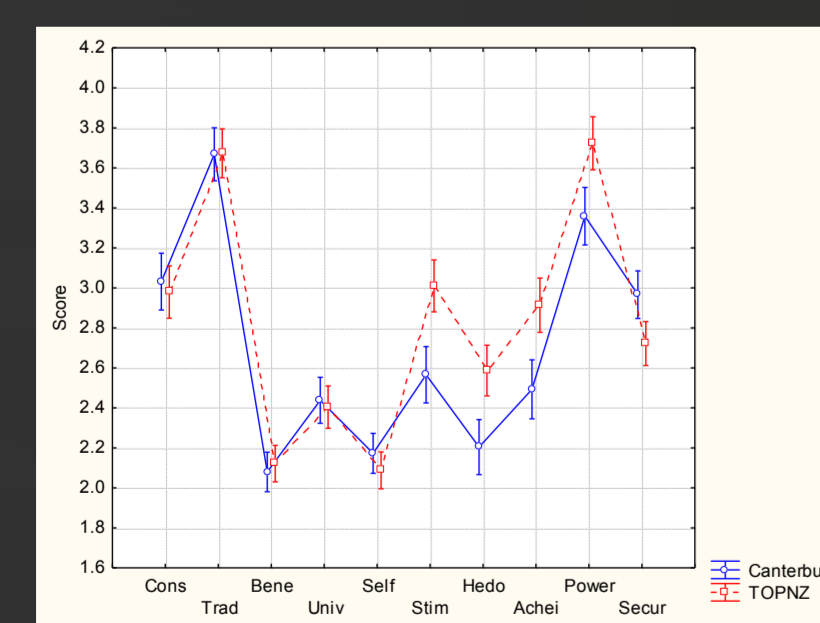
Procedure

- This study was offered via e-mail and website notices to students at both institutions who were in their first semester of tertiary study. Hosted online at surveymonkey.com, the study began in July 2008 and ended October 2008. Participants went into a draw for one of six \$100 book vouchers for participating.
- At the end of semester, these measures were related to retention rates and academic grades.
- Academic grades** - Out of 100 (i.e., %).
- Retention rates** - If completed course and received a grade.

Results

Group Comparisons

- Values** - TOPNZ students reported higher **Stimulation**, **Hedonism**, **Achievement** and **Power**, and UC students reported higher **Security**. Females reported valuing others more than themselves, and males reported valuing Benevolence and Security more.
- Hope** - No significant findings for place of study or gender.
- Grit** - TOPNZ students reported higher **Total Grit** scores (12 item scale), and were higher in **Persistence of Effort**, whereas UC students reported higher scores for **Ambition**. Females reported higher **Total Grit** scores, and higher **Consistency of Interest**.



References

Schwartz, Melech, Lehmann, Burgess, Harris, & Owens. (2001). Extending the cross-cultural validity of the theory of basic human values with a different method of measurement. *Journal of Cross-Cultural Psychology*, 32, 519-542.

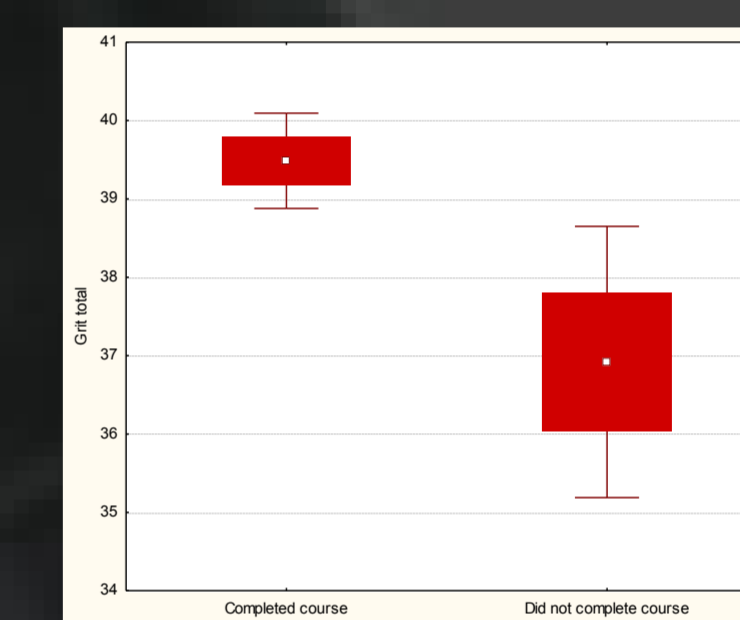
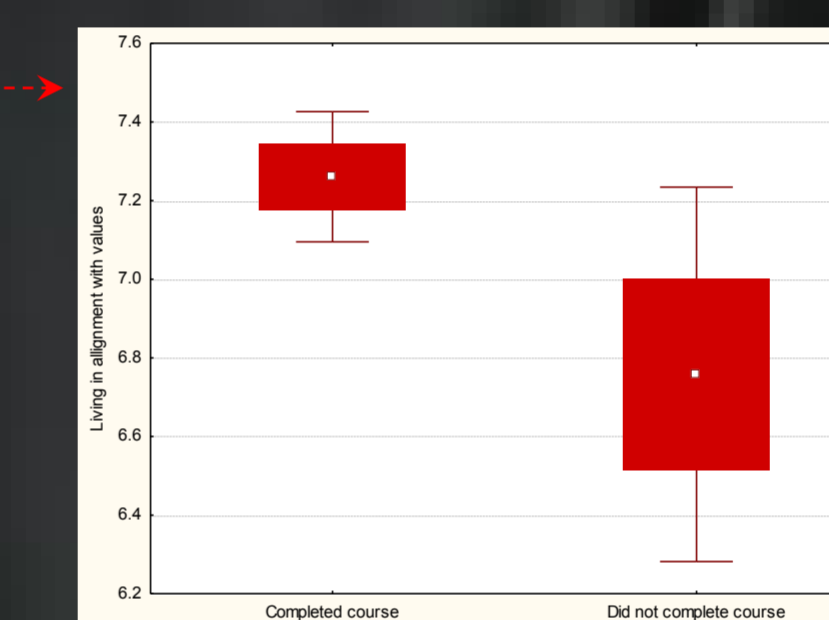
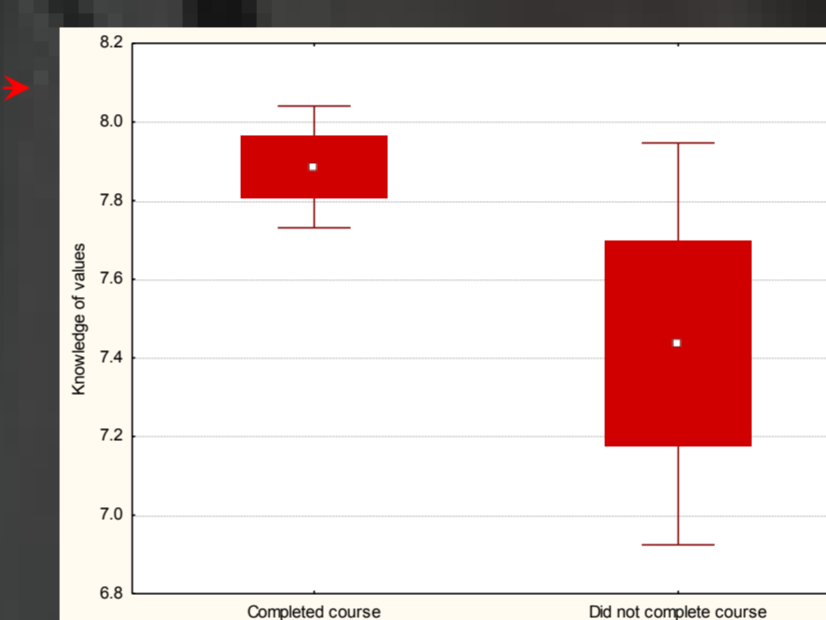
Snyder, Harris, Anderson, Holleran, Irving, Sigmon, *et al.* (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology*, 60, 570-585.

Duckworth, Peterson, Matthews, & Kelly, (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology*, 9, 1087-1101.

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Retention

- Retention rates:
 - TOPNZ - Of the 237 students who began a course, 55 (20.25%) did not complete (48 females, 7 males).
 - UC - Of the 201 students who began a course, 7 (3.48%) did not complete (5 females, 2 males).
- Age** - An independent samples t-test revealed a statistically significant difference between age and completion: completed course ($M = 26.52$, $SD = 10.33$), did not complete ($M = 30.81$, $SD = 10.39$, $t(436) = -3.022$, $p = 0.003$).
- Values** - Students who completed a course reported **knowing their values** more and **living in alignment with their values** more. They also endorsed the values of Tradition, Universalism, Self-Direction, Power and Security more.
- Hope** - No significant findings with regard to retention and Total Hope scores, or pathway or agency factors. However, individual item analysis identified that those who completed reported less tiredness, worry about their health, general worry, and reported more success in life and goal attainment [$*p < 0.05$].
- Grit** - Students who completed reported higher **Total Grit** scores, and were higher on the Consistency of Interest sub-factor. Individual item analysis identified that those who completed reported being more diligent, greater task completion, and less goal changes, distraction and changing of interests [$*p < 0.05$].



Success

- Gender and Place of Study** - Independent samples t-tests did not reveal any statistically significant differences between either gender or place of study, meaning that scores were similar across institutions and genders.
- Age** - A statistically significant positive correlation ($*p < 0.05$) was found between course scores and with age ($r = 0.11*$) - meaning that as age increased, scores increased.
- Values** - Statistically significant positive correlations ($*p < 0.05$, $**p < 0.01$) were found between course scores and with living in alignment with values ($r = 0.12*$), and with the values of Stimulation ($r = 0.11*$) and Hedonism ($r = 0.15**$).
- Hope** - No significant findings with regard to course scores and Total Hope scores, or pathway or agency factors. Item analysis identified a statistically significant positive correlation ($*p < 0.05$) between course scores and past successes ($r = 0.10*$), and a negative correlation with worry about health ($r = -0.13*$).
- Grit** - Statistically significant positive correlations ($*p < 0.05$, $**p < 0.01$) were found between course scores, and Total Grit scores ($r = 0.17**$) and with Consistency of Interest ($r = 0.22**$). Item analysis identified statistically significant positive correlations ($*p < 0.05$, $**p < 0.01$) between course scores and diligence ($r = 0.25**$), goal setting ($r = 0.15**$), non-distractibility ($r = 0.14**$), hard work ($r = 0.15**$), maintaining interest ($r = 0.16**$), maintaining focus ($r = 0.13*$), and stability of interest ($r = 0.20**$).

Summary and Implications

- This research indicates that:
 - Older students complete less, yet score higher when they do complete. Females and distance education students completed less, yet score similar to males and contact education students when they do complete.
 - There are distinctly different personal values and grit profiles between distance and contact education students that can be utilised to enhance teaching effectiveness, in particular by increasing success and retention rates. For example, distance students may benefit from motivational strategies that tap into self-enhancement values and promote ambition. Contact students may benefit from motivational strategies that tap into conservative values and reinforce effort (e.g., Carol Dweck's growth mind set work).
 - All students may benefit from identifying what is important (i.e., personal values) and taking steps to live in alignment with their values, and from having their interest in study consistently engaged.
 - Hope does not seem to be related to retention or success in first year tertiary study.